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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,652	01/04/2001	Susumu Kusakabe	112857-228	2981
29175	7590	03/22/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			SIMITOSKI, MICHAEL J	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,652

Applicant(s)

KUSAKABE ET AL.

Examiner

Michael J Simitoski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The response of 10/1/2004 was received and considered.
2. Claims 1-2, 5-15 & 17 are pending.

Claim Objections

3. Claim 1 is objected to because of the following informalities:

Regarding claim 1, “fox” (line 6) should be replaced with “for”.

Regarding claim 1, “organization” (line 9) should be replaced with “organizations”.

Regarding claim 2, “key information, the authentication” has an extra “space” (line 16).

Regarding claim 7, “and; and” should have one “and” removed (line 11).

Regarding claim 14, “fist” (line 5) should be replaced with “first”.

Regarding claim 17, the claim ends with double periods “.”.

4. Appropriate correction is required.

Response to Arguments

5. Applicant's arguments with respect to claims 1-2, 5-15 & 17 have been considered but are moot in view of the new ground(s) of rejection.

6. By Applicant's response, the objection to claim 14 and rejections of claim 2, 4 & 9, set forth in the previous Office Action, are withdrawn.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 14, 15 & 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 14 recites the limitation "allocating a memory space to separate area in the memory", but the specification does not disclose this.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-2, 5-15 & 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the limitation "specifying its size of a memory" is unclear. *For the purposes of this Office Action, "it" in the above limitation will be understood to mean "the".*

Regarding claim 1, it is unclear whether the "size of a memory space to be dedicated ..." is specified in "said portable device", "said file key information" or both.

Regarding claims 1 & 2, it is unclear whether "transmitting the file registry information" refers to the file registry information encrypted with the issuer key information or the file registry information in plaintext.

Regarding claim 1, the limitation “said file key information being assigned to each of the plurality of business organizations” (line 9) suggests that the same file key information is assigned to all of the organizations, but the specification does not explicitly disclose such a limitation.

Regarding claim 2, the claim recites the limitation “said file key information” in lines 8 & 9. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 2, the limitation “authentication between each business organization and said portable electronic device” (lines 15-16) suggests that authentication between the portable electronic device and all business organizations is required to enable access to the portable electronic device, but the specification does not explicitly disclose such a limitation.

Regarding claim 6, the limitation “wherein the access apparatus acquires, together with ..., and the corresponding access ...” is incomplete. A limitation of this type requires the following format “wherein the access apparatus acquires, together with ..., and the corresponding access, [what the apparatus acquires together with the issuer key change info and access key info]”.

Regarding claim 7, it is unclear whether “said memory” (line 5) refers to “a memory unit” or “memory spaces”.

Regarding claim 7, the following limitation can be interpreted multiple ways: (1) “said information comprising file registry information, ... and said file key information”, (2) “said information comprising file registry information, ... said file registry information including memory space specifying information and file key information”, (3) “said information comprising file registry information, ... said file registry information including memory space

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specifying information and file key information or “said information comprising file registry information, ... said file registry information including memory space specifying information for specifying a size of a memory space to be dedicated [both] in said portable electronic device and said file key information”.

Regarding claim 7, it is unclear whether “said file key information and said first issuer key information” is transmitted from an access apparatus with “information” or processed with “information”.

Regarding claim 7, it is unclear whether “said information” or “said file registry information” is “encrypted with the first issuer key information”.

Regarding claim 9, the claim recites the limitation “said second key information” in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 14, it is unclear what “created by a management sector” (line 10) is modifying.

Regarding claim 14, the limitation “memory space specifying information for specifying to be dedicated” is indefinite.

Regarding claim 17, the claim recites the limitation “the second issuer key information” in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 2, 7, 11 & 14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,710,613 to Shigenaga in view of 4,849,614 to Watanabe et al. (Watanabe) in view of U.S. Patent 5,161,256 to Iijima in further view of U.S. Patent 5,745,571 to Zuk. Shigenaga discloses authenticating/identifying a portable electronic device/IC card by using a first access key information/encrypted random number generated by file key information/MPUK assigned to each of a plurality of business organizations and first issuer key information/IPUK generated by a management sector/issuer (col. 9, lines 1-12). Shigenaga discloses accessing the portable electronic device/IC card when a user is authorized (col. 1, lines 38-42), but lacks specifically accessing area allocated corresponding to the file key information using the first access key information. However, Watanabe teaches a system that allows a common area accessible to any enterprise and certain areas to be accessed only from the pertinent enterprise (col. 2, lines 11-14). Watanabe's system stores multiple areas on the card (Fig. 1) each with their own index area (Fig. 1 & Fig. 3); the index areas describing which keys area required to identify an enterprise for access to that specific area of the card (Fig. 3, 3rd and 4th bytes & col. 7, lines 1-46), wherein the keys consist of one or more of an enterprise key, an issuer key, a personal key and a control key (col. 7, lines 10-23). The keys are read into the card and compared with stored values (col. 5, lines 15-35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the encrypted random number/access key information of Shigenaga to access an area corresponding to the file key information/MPUK/enterprise key. One of ordinary skill in the art would have been motivated to perform such a modification to allow multiple enterprises to access the same card

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securely and privately by submitting a key to the card, as taught by Watanabe (col. 2, lines 11-14, col. 5, lines 15-35, col. 7, lines 1-46, Fig. 1 & Fig. 3, 3rd and 4th bytes). As modified, Shigenaga lacks specifically allocating a memory space to separate area in the memory by decrypting a file registry information to generate memory space specifying information, for specifying the space to be dedicated in the memory space, and file key information. However, Iijima teaches to send a file to an IC card that has a plurality of areas to be accessed by different applications (col. 1, lines 10-25), an input command in the form of a data file definition command (file registry information) is sent and memory is allocated based on the size specified in the command (col. 4, lines 38-59 & Fig. 11). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to transfer a data file definition command to add data to Watanabe's card, along with the key required to access certain areas. One of ordinary skill in the art would have been motivated to perform such a modification to allocate memory space to an IC card to add data, as taught by Iijima (col. 1, lines 10-25, col. 4, lines 38-59 & Fig. 11). As modified, Shigenaga lacks decrypting the file registry information/data file definition command and key file information. However, Zuk teaches that to securely transfer data/key to a card, it is known to encrypt the data, transfer the data from a source and at the card, decrypt the data and store it in memory (col. 2, lines 15-27 & col. 5, lines 8-23). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to encrypt the file registry information (data file definition) and file key information (key required for access). One of ordinary skill in the art would have been motivated to perform such a modification to securely transfer the data to the card, as taught by Zuk (col. 2, lines 15-27 & col. 5, lines 8-23).

13. Claims 5, 10 & 15, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigenaga, Watanabe, Iijima & Zuk, as applied to claims 1, 7 & 14 above, in further view of "SMuG.0" by Canetti et al. (Canetti). Shigenaga discloses a system, as described above, but lacks replacing/updating the key as described in claim 15. However, Canetti teaches that one known way to distribute an updated key is to encrypt the new key with the old key (page 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to update the first issuer key information by transmitting issuer key change information generated by encrypting second issuer key information/new key with said first issuer key information/old key. One of ordinary skill in the art would have been motivated to perform such a modification to distribute an updated key, as taught by Canetti (page 5).

14. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shigenaga, Watanabe, Iijima & Zuk, as applied to claim 7 above, in view of U.S. Patent 5,991,749 to Morrill, Jr. (Morrill). Shigenaga, as modified above, lacks specifically the portable electronic device being a cellular phone. However, Morrill teaches that cellular phones can be used to perform functions comparable to smart cards to achieve greater security over previous cell phone techniques (col. 1, lines 14-23 & col. 6, lines 16-35). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to enable a cellular phone with the features of Shigenaga. One of ordinary skill in the art would have been motivated to perform such a modification to achieve greater security for transactions than previous cellular phones offer, as taught by Morrill (col. 1, lines 14-23 & col. 6, lines 16-35).

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m.. The examiner can also be reached on alternate Fridays from 6:45 a.m. - 3:15 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached at (571) 272-3838.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

(703)746-7239 (for formal communications intended for entry)

Or:

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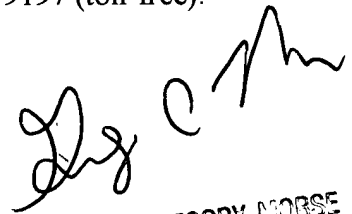
(571)273-3841 (Examiner's fax, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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March 4, 2005



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